

Date: Fri, 10 Dec 93 16:11:10 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #1447
To: Info-Hams

Info-Hams Digest Fri, 10 Dec 93 Volume 93 : Issue 1447

Today's Topics:

1.5 foot Microwave Dish *HELP*
ARRL BOOK???WHERE???
ENDEAVOUR
FCC's "These Rules"
ORBS\$344.MISC.AMSAT
PC HF FAX
Receive broadcast FM on 2m mobile antenna?
Scratchi, January, 1960
Scratchi article
WANTED GR MANUAL
WinHams in Anaheim?

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 7 Dec 1993 13:19:38 -0800
From: news.sprintlink.net!news.world.net!cyberspace.com!cyberspace.com!not-for-mail@uunet.uu.net
Subject: 1.5 foot Microwave Dish *HELP*
To: info-hams@ucsd.edu

Subject: 1.5 foot Microwave Dish *HELP*
Newsgroups: rec.radio.amateur.misc
Summary:
Keywords:

Recently I purchased a surplus aircraft microwave dish and would like to use it. The only problem is I have not been able to find very much information on feeding it. I do have 2 feed horns that go to it, but am afraid that I will have to adapt a gunplexer! Here is the information on the dish.

91892-1
Reflector-Antenna
4.4 Ghz to 10.0 Ghz
Made by
Stoddart Aircraft Radio Co.,Inc.
H9ollywood California

2-Feedhorns 4.4 to 7.3Ghz & 7.3 to 10 Ghz

Date: 10 Dec 93 18:53:54 GMT
From: ogicse!uwm.edu!wupost!wuecl.wustl.edu!cec2!j1w3@network.ucsd.edu
Subject: ARRL BOOK???WHERE???
To: info-hams@ucsd.edu

Gary Coffman (gary@ke4zv.atl.ga.us) wrote:
: that. First and foremost they have to dumb it down to the reading level
: of current amateurs. It's currently at about an eighth grade reading
: level. And second, the simple CW transmitter construction projects included

Wait--I don't find the handbook (1991 ed) particularly easy reading--I'm definitely not at the eight grade level. OK, maybe just college, but even so, that handbook isn't really that simple to read if you aren't so experienced as to be an engineer or for that matter, an Advanced--Granted, things like electrical theory are um. . .abbreviated, but I think they are for people like me, who only have limited experience in electrical networks.

: One of the better years for the Handbook is 1962. That's the edition to
: which I refer most often. It uses bigger words and more complex sentence
: structure, but it should be accessable to someone who was a tenth grader
: in 1962, or to current college graduates. It includes more ambitious

Are these current college graduated assumed to have graduated in a techincal field. i.e. What if the graduate is a graduate in the humanities or natural sciences???????

IMHO that 2.25 inch thick manual is plenty to start with.

--jesse (not yet a ham but working on it. . .)

btw, no flame intended. . .

Date: Wed, 8 Dec 1993 22:08:22 GMT
From: news.Hawaii.Edu!uhunix3.uhcc.Hawaii.Edu!jherman@ames.arpa
Subject: ENDEAVOUR
To: info-hams@ucsd.edu

In article <CHpvuo.FIt@pica.army.mil> mellis@ramcad.pica.army.mil (Mark Ellis) writes:

>

>In article (Graham Butler) writes:

>

>>From: Graham.Butler@f734.n153.z1.ship.net (Graham Butler)

>>Newsgroups: rec.radio.amateur.misc

>>Subject: ENDEAVOUR

>>

>>Does anybody know what frequency/frequencies the Endeavour shuttle-craft

>>will be using on it's latest mission to repair the Hubble?

>>

Graham (VE7 BBZ)

You might want to read r.r.scanner - the folks on there are quite excited about hearing these transmissions on their scanners; frequencies are being passed on there.

Jeff NH6IL

Date: 10 Dec 93 22:16:19 GMT
From: news-mail-gateway@ucsd.edu
Subject: FCC's "These Rules"
To: info-hams@ucsd.edu

A few comments have appeared recently dealing with the term "these rules" in context of FCC 97.403 and other applications.

Answer appears to be best described in FCC 0.406:

"0.406 (a) Format. The rules are set forth in the Code of Federal Regulations as Chapter I of Title 47. Chapter I is divided into parts numbered from 0-99. Each part, in turn, is divided into numbered sections....

"In citing the Code of Federal Regulations, the citation, 47 CFR 5.1, for example, is to para. 5.1 (in Part 5) of Chapter I of Title 47 of the Code, and permits the exact location of that rule. No citation to other rule units (e.g., subpart or chapter) is needed."

As I read this, "The Rules" includes everything in Chapter I of 47 CFR,
and include ALL of the Parts. The rules governing amateur radio are in
part 97 of "The Rules".

Paul Marsh N0ZAU "still not proven guilty of anything" Omaha
pmarsh@metro.mccneb.edu

Date: 10 Dec 93 16:58:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: ORBS\$344.MISC.AMSAT
To: info-hams@ucsd.edu

SB KEPS @ AMSAT \$ORBS-344.M
Orbital Elements 344.MISC

HR AMSAT ORBITAL ELEMENTS FOR MANNED AND MISCELLANEOUS SATELLITES
FROM WA5QGD FORT WORTH, TX December 10, 1993
BID: \$ORBS-344.M
TO ALL RADIO AMATEURS BT

Satellite: MIR
Catalog number: 16609
Epoch time: 93343.56114036
Element set: 20
Inclination: 51.6180 deg
RA of node: 58.4213 deg
Eccentricity: 0.0005383
Arg of perigee: 74.5508 deg
Mean anomaly: 285.6216 deg
Mean motion: 15.58960993 rev/day
Decay rate: 1.0605e-04 rev/day^2
Epoch rev: 44645
Checksum: 291

Satellite: HUBBLE
Catalog number: 20580
Epoch time: 93343.39583333
Element set: 379
Inclination: 28.4711 deg
RA of node: 14.8965 deg
Eccentricity: 0.0005601
Arg of perigee: 267.3006 deg
Mean anomaly: 145.0087 deg
Mean motion: 14.90298067 rev/day
Decay rate: 2.98e-06 rev/day^2
Epoch rev: 105

Checksum: 290

Satellite: GRO

Catalog number: 21225

Epoch time: 93341.66776924

Element set: 4

Inclination: 28.4617 deg

RA of node: 121.0915 deg

Eccentricity: 0.0031871

Arg of perigee: 286.3791 deg

Mean anomaly: 73.2946 deg

Mean motion: 15.46763151 rev/day

Decay rate: 6.624e-05 rev/day²

Epoch rev: 2736

Checksum: 300

Satellite: UARS

Catalog number: 21701

Epoch time: 93342.65260819

Element set: 418

Inclination: 56.9828 deg

RA of node: 202.5066 deg

Eccentricity: 0.0005874

Arg of perigee: 102.5209 deg

Mean anomaly: 257.6002 deg

Mean motion: 14.96251149 rev/day

Decay rate: 3.629e-05 rev/day²

Epoch rev: 12240

Checksum: 285

Satellite: POSAT

Catalog number: 22829

Epoch time: 93341.80894716

Element set: 208

Inclination: 98.6692 deg

RA of node: 54.3707 deg

Eccentricity: 0.0010935

Arg of perigee: 37.7065 deg

Mean anomaly: 322.4792 deg

Mean motion: 14.27988203 rev/day

Decay rate: 9.1e-07 rev/day²

Epoch rev: 1038

Checksum: 313

/EX

Date: Wed, 8 Dec 1993 12:43:27 GMT
From: news.cerf.net!pagesat!olivea!spool.mu.edu!howland.reston.ans.net!pipex!
uknet!doc.ic.ac.uk!syma!mpfb8@network.ucsd.edu
Subject: PC HF FAX
To: info-hams@ucsd.edu

Does anyone have the details of the hardware interface for the PC HF
Fascimile Program, V 5.0 please.
The audio from the HF RX is fed into the serial port but I believe there
are
more than one line used and I do not have the information.
Any help or advice would be appreciated.
TNX and 73, Peter.

Date: 10 Dec 93 15:42:57 GMT
From: ogicse!emory!kd4nc!ke4zv!gary@network.ucsd.edu
Subject: Receive broadcast FM on 2m mobile antenna?
To: info-hams@ucsd.edu

In article <CHsMuy.DJH@boi.hp.com> riyadth@boi.hp.com (Riyadth Al-Kazily) writes:
> I remember seeing combination CB/AM/FM antennas advertised in the
>past, with some kind of isolator to prevent the CB from overloading the
>AM/FM receiver. Is there any similar product for Amateur Radio use?
>Otherwise, I guess I'll just buy a magnetic mount antenna for amateur
>use -- but it sure would be nice to have a more permanent solution.

Antenna Specialists carries just what you want in their *police*
catalog. It's a "stealth" antenna for undercover work. They have
models that exactly emulate the appearance of ordinary auto radio
antennas for that vehicle model while actually being high band VHF
antennas, and they still work for AM and FM reception too. They
include the duplexer. Any AS dealer who supplies police agencies
can order you one for your car. Installation can be a little
tricky.

Note, a center of roof mount will still work better than the cowl
mount, but this is better than on-glass or magmount expedients.

Gary

--
Gary Coffman KE4ZV | I kill you, | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | You kill me, | uunet!rsiatl!ke4zv!gary
534 Shannon Way | We're the Manson Family | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | -sorry Barney |

Date: Thu, 9 Dec 93 19:27:24 GMT
From: mnemosyne.cs.du.edu!nyx10!lkollar@uunet.uu.net
Subject: Scratchi, January, 1960
To: info-hams@ucsd.edu

>I'm not old enough to have read the "Scratchi" column in CQ when it first
>came out, but I have seen plenty of back issues, so it never occurred to me
>that people wouldn't realize that Scratchi was Japanese.

I never saw the originals, either... but from the name & accent portrayal,
I'd have guessed Scratchi was Pakistani or from that region.

Judging, however, from the market share of American amateur radio, I'd say
Scratchi had the last laugh.

The article was interesting, though -- the prospective students seemed to
be ridiculing the non-cutting-edge nature of Scratchi's equipment. And I
thought that 1960's technology was pretty good in 1960! :-)

Hoping to see more Scratchi articles, I am --

--

Larry Kollar, KC4WZK | I like CW, but that doesn't mean I think every ham
lkollar@nyx.cs.du.edu | should have to learn it.
"On the Internet, nobody knows you're a dog."

Date: Thu, 9 Dec 1993 19:34:55 GMT
From: walter!speech!dk@uunet.uu.net
Subject: Scratchi article
To: info-hams@ucsd.edu

I've glanced at old Scratchi articles from time to time over the
years and have always been confused as to what was being satirized.
So I have to agree with those who are surprised at how offensive
Greg found the posted article. What I can't agree with is the
nature of the attacks on him. A simple, "Gee Greg, I didn't find
the article racist - what in particular are you referring to?"
would have sufficed. Greg had the courage to speak up and say,
"this sort of thing may be unnecessarily hurtful to a particular
group; let's be careful." I applaud him for that.

Dan Kahn, K1DK

Date: Tue, 7 Dec 1993 23:06:01 GMT
From: sdd.hp.com!vixen.cso.uiuc.edu!howland.reston.ans.net!spool.mu.edu!olivea!news.bu.edu!att!att-out!cbfsb!cbnewsb.cb.att.com!wb2qoq@network.ucsd.edu
Subject: WANTED GR MANUAL
To: info-hams@ucsd.edu

Wanted: Manual for General Radio model 1650A Impedance Bridge. Will pay for manual or good photocopy.
Bob Barns, KB2IKC, (908)464-6785 Berkeley Heights, N.J. or reply via e-mail to Rick WB2QOQ at rja\@whamt.att.com. tnx.

Date: Fri, 10 Dec 1993 08:48:48 GMT
From: netcomsv!netcom.com!tcj@decwrl.dec.com
Subject: WinHams in Anaheim?
To: info-hams@ucsd.edu

Are there any fellow amateur radio operators attending the Microsoft Win32 Developer's Conference in Anaheim next week? If so, has a BOF frequency been selected? If not, might I propose 146.55?

Todd, KB6JXT

Date: 10 Dec 93 17:59:13 GMT
From: butch!rapnet!news@uunet.uu.net
To: info-hams@ucsd.edu

References <gregCHrsuv.3Jt@netcom.com>,
<jchappel.80.755465269@sanders.lockheed.com>, <gregCHtM06.AzD@netcom.com>
Subject : Re: Scratchi, January, 1960

In article <gregCHtM06.AzD@netcom.com> greg@netcom.com (Greg Bullough) writes:
>Newsgroups: rec.radio.amateur.misc
>Path: rapnet!butch!netcomsv!netcom.com!greg
>From: greg@netcom.com (Greg Bullough)
>Subject: Re: Scratchi, January, 1960
>Message-ID: <gregCHtM06.AzD@netcom.com>
>Organization: Netcom Online Communications Services (408-241-9760 login: guest)
>References: <jchappel.79.755364937@sanders.lockheed.com>
<gregCHrsuv.3Jt@netcom.com> <jchappel.80.755465269@sanders.lockheed.com>
>Distribution: usa
>Date: Fri, 10 Dec 1993 13:12:06 GMT
>Lines: 110

>In article <jchappel.80.755465269@sanders.lockheed.com>
jchappel@sanders.lockheed.com (Joel Chappell) writes:

>>

>>Greg - This is so typical of liberal behavior. Yes it was the best without
>>really flaming yer butt....

>Well, gawwwllleeee. My butt's hottern' a leaky ol' still. What is this,
>the 'Hampshire Hillbillies?

You prove my point exactly Greg...you are guilty of what you accuse the rest
of us of being. Golllee, maybe I'll get my first pair of shoes for
Christmas so's I can go out and work on the antenna in the snow.

>>

Now when faced with the truthful part that I
>>wrote, and that is; this is a bit of amateur radio history and was
>>written more than 30 years ago (as pointed out to you by others), you jump
>>to another smart remark and try to raise color as an issue.

>Color *IS* the issue, you ignoramus. Look up 'race' in the dictionary.

uh uh uh... your doing it again Greg

>Use the call-sign server. I did, and found I've been an active ham
>longer than it suggests you have. You can find the same information,
>at least if you can read the FAQs well enough to glean it. By the
>way, how is your ad hominem argument relevant?

Greg the data base just records from my last 610...I was pounding brass on
80 CW many years before you were born. I've got kids your age with better
education.

>>What do you know about the person who originally wrote the Scratchi
>>letters? What do you know about his motives? How many other Scratchi
>>letters have you read?

>I'd invite you over to see my collection of old ham literature (I've been
>one of those wierd collectors of the stuff since before it was popular.
>Used to pick up QSTs at the local thrift stores.)

But Greg...you didn't answer the question....who wrote Scratchi?
What was his main motive in writing the Scratchi column? If you had all of
these (and they were not in QST btw) you should have some idea of what the
purpose was, what the ongoing theme was on a monthly basis.

>>

The answer is nothing, not much, zero..zip.

>While you're looking up 'race,' look up prejudice. Your refusal to read
>what's written, to label everything and move on, to answer your own questions
>before hearing the answer demonstrates an inclination towards prejudice.
>One wonders how you've managed to have any success as an engineer. Then
>again, it is defense...

Your making assumptions again..but you should be so successful!

--Joel--

===

```
|-----|
| Joel B. Chappell - KC1SG                      Lockheed Sanders |
| Principal Engineer                            Nashua, NH 03061   |
|                                               |
|           -= Standard Disclaimer: All opinions are mine. -=      |
|                                               |
| jchappel@rapnet.sanders.lockheed.com          |
| Fido: 1:132/204.1                                         |
|-----|
```

Date: Thu, 9 Dec 93 19:27:56 GMT
From: butch!rapnet!news@uunet.uu.net
To: info-hams@ucsd.edu

References <gregCHo43F.9o4@netcom.com>,
<jchappel.79.755364937@sanders.lockheed.com>, <gregCHrsuv.3Jt@netcom.com>
Subject : Re: Scratchi, January, 1960

In article <gregCHrsuv.3Jt@netcom.com> greg@netcom.com (Greg Bullough) writes:
>Newsgroups: rec.radio.amateur.misc
>Path: rapnet!butch!uunet!tadpole.com!news.dell.com!swrinde!elroy.jpl.nasa.gov!
decwrl!netcomsv!netcom.com!greg
>From: greg@netcom.com (Greg Bullough)
>Subject: Re: Scratchi, January, 1960
>Message-ID: <gregCHrsuv.3Jt@netcom.com>
>Organization: Netcom Online Communications Services (408-241-9760 login: guest)
>References: <mac.755206284@depot.cis.ksu.edu.cis.ksu.edu>
<gregCHo43F.9o4@netcom.com> <jchappel.79.755364937@sanders.lockheed.com>
>Distribution: usa
>Date: Thu, 9 Dec 1993 13:44:54 GMT
>Lines: 16

>In article <jchappel.79.755364937@sanders.lockheed.com>
jchappel@sanders.lockheed.com (Joel Chappell) writes:
>>

>>Greg - You must not have been dry behind the ears the first time that
>>Scratchi letter was published (I cleaned up my first thought). I rather
>>enjoyed the nostalgia of rereading Scratchi and I'll not allow your liberal
>>attitude to ruin that. Go rain on someone elses parade. Take your
>>politically correct narrow nose and poke it up the Clinton's backside
>>instead of sticking it into a part of Amateur Radio history and trying to
>>make it into something it is not!

>Is that the best you can do?

>Bet y'all miss them minstrel shows, too.

Greg - This is so typical of liberal behavior. Yes it was the best without
really flaming yer butt....Now when faced with the truthful part that I
wrote, and that is; this is a bit of amateur radio history and was
written more than 30 years ago (as pointed out to you by others), you jump
to another smart remark and try to raise color as an issue. Typical liberal
way to squirm away from the truth. I doubt that Myron had any other motive
other than to replay a bit of that history for us. What do you really know
about amateur radio Greg? Do you have a ticket? I have not seen your
callsign here. What do you know about life in the USA 40 to 50 years ago?
What do you know about the person who originally wrote the Scratchi
letters? What do you know about his motives? How many other Scratchi
letters have you read? The answer is nothing, not much, zero..zip. No, you
just jumped in with your new age PC crap and raised a lot of issues without
doing the research. Too many folks use this political correctness to white
wash the truth Greg....and that's what I object to. And they use it to
rewrite history books and change our social values. Now in typical liberal
fashion you have me stereo-typed as some sort of bigot. Why I might even be
black for all you know, or a member of some ethnic group....but you're so
cocked sure about what I found funny about Scratchi..and it can't be good.
Well Greg..you have no idea what I believe, what I know, what I've done..how
well I do it...but you're guilty of what you accuse the rest of doing. Now
you can go back to your cage and clean the egg off your face.

-=Joel=-

===

```
| ~~~~~|
| Joel B. Chappell - KC1SG                Lockheed Sanders |
| Principal Engineer                      Nashua, NH 03061   |
|                                         |
|      -= Standard Disclaimer: All opinions are mine. -=      |
|                                         |
| jchappel@rapnet.sanders.lockheed.com    |
| Fido: 1:132/204.1                      |
|                                         |
| ~~~~~|
```

Date: Thu, 9 Dec 1993 16:21:28 GMT
From: pravda.sdsc.edu!usc!howland.reston.ans.net!europa.eng.gtefsd.com!emory!
rsiatl!ke4zv!gary@network.ucsd.edu
To: info-hams@ucsd.edu

References <1993Dec6.162309.23130@cirrus.com>,
<1993Dec7.234425.4647@ke4zv.atl.ga.us>, <1993Dec8.184205.20082@ll.mit.edu>
Reply-To : gary@ke4zv.atl.ga.us (Gary Coffman)
Subject : Re: hypochondriac scared of cancer!

I'm posting this in hopes it shows how thinking about these types of problems is done, and how you can sometimes get the right answers for the wrong reasons. The textbooks always make it look too easy. :-)

In article <1993Dec8.184205.20082@ll.mit.edu> wjc@ll.mit.edu (Bill Chiarichiaro) writes:

>In article <1993Dec7.234425.4647@ke4zv.atl.ga.us>, gary@ke4zv.atl.ga.us (Gary Coffman) writes:

>|> ...stuff deleted...

>|>Note that the *tower* is 70 feet tall according to our poster, but
>|>that's not the length of the *antenna*. I'm assuming a single bay
>|>for simplicity of calculation. That's a halfwave dipole. Now the field
>|>strength will be maximum across a sphere with a diameter of a halfwave
>|>that just encompasses the element because there's a 180 degree phase
>|>shift across a halfwave and that gives maximum voltage. That also happened
>|>to be 1 meter in my simplified calculation, but turned into 1.44 meters
>|>in the more accurate calculation. Since field strength falls off with
>|>the inverse of the distance, and since we know the voltage at 1.44 meters,
>|>it's simple to find the voltage at 30.46 meters. Now the power density is
>|> $P=E^2/R$. Since R for free space is 377 ohms, we have $34.92^2/377=3.23 \text{ W/m}^2$.
>|>Now divide that by 100,000 to get 0.0323 milliwatts/cm². I slipped a decimal
>|>there before when calculating a power ratio directly. The power density is
>|>well below the OSHA and ANSI limits.

Urp. I slipped the decimal *again*. To convert from W/m² to mW/cm² you have to multiply by 1,000 to get the power into milliwatts and divide by *10,000* to get the area into square centimeters. That's the same as dividing by 10 so the corrected answer becomes 0.323 mW/cm².

> Something's still wrong here. The claim that the field strength
>half a wavelength from the transmitting antenna is equal to the square
>root of the product of the transmitted power and the impedance of free
>space looks like a rule of thumb with which I'm not familiar. In any
>event, I claim that the resulting field strength figure at 100 feet is
>off by a factor of 3.55 (I don't know if this is close enough to pi to
>be suspicious).

>
> I calculate the field strength as follows (making the same isotropic
> antenna assumption as did Gary):

Note I didn't make the assumption that the antenna was isotropic.
I assumed it to be a dipole oriented perpendicular to the line of
sight to the window. A purpose of an antenna is to act as an impedance
matching device between the transmission line impedance and that of free
space. Since we know that the maximum voltage will appear across points
separated by 1/2 wave, and if we assume the antenna is perfect, then using
 $E = \sqrt{P_o \cdot R_{free}}$ should give us the voltage across a 1/2 wave of free
space in the plane perpendicular to our line of sight to the window,
at the antenna. I just realized I'm basically ignoring the fall off of
field strength in the first 1.44 meters. That's where the difference lies,
I can't do that. The number I got is the field strength at the dipole
tips. Double aaarrrrgh!

> Radiated Power = 3,000 watts
>
> Surface Area of
> 100-foot-radius
> sphere centered
> on antenna = 125,664 ft²
> = 11,675 m²
>
> Power Flux = Power / Area = 0.2570 W/m²
> = 2.570 mW/cm²

0.0257 mW/cm², you slipped the decimal too. :-)

> Electric Field Strength = $\sqrt{\text{Power Flux} \cdot \text{Free-Space Impdnc}}$
> = $\sqrt{0.2570 \text{ W/m}^2 \cdot 377 \text{ ohms}}$
> = 9.84 V/m rms
>
> Note also that to convert from W/m² to mW/cm² you need to multiply
> by 10.

Divide by 10. I don't see anything wrong with your approach, aside from
the slipped decimals. Our answers differ by about an order of magnitude.
That's because I screwed up assuming the field at the dipole was the
same as the field a bit over 1/2 wave away. It isn't. Just for grins,
let's do it another way and see how the answer falls out. Let's assume
the isotropic radiator to attempt to get the same answer. So 1 meter from
the radiator we have a sphere of $4\pi R^2$ or 12.57 square meters surface
area. That gives a power density of $3000/12.57$ or 238.66 W/m² for a field
strength of $\sqrt{238.66 \cdot 377}$ or 299.96 V/m. Now divide by 30.46 to get the
field strength at the window of 9.85 V/m. And that gives a power density at
the window of 0.257 W/m². Dividing by 10 we get 0.0257 mW/cm².

Ah, convergence. We're singing from the same songbook now.

Now isotropic radiators aren't real. If we assume a cylindrical pattern from a dipole perpendicular to our window with no end effects, (simplifying again), our field strength 1 meter from the antenna becomes 353.56 V/m. And that puts the field strength at the window at 11.61 V/m. the power density becomes 0.0358 mW/cm² which is almost the same as the number I stumbled into in my original post thanks to errors of assumption and slipped decimals. No credit for correct answers arrived at by incorrect methods. :-(

Gary

--

| | | |
|-----------------------------|-------------------------|--------------------------|
| Gary Coffman KE4ZV | I kill you, | gatech!wa4mei!ke4zv!gary |
| Destructive Testing Systems | You kill me, | uunet!rsiatl!ke4zv!gary |
| 534 Shannon Way | We're the Manson Family | emory!kd4nc!ke4zv!gary |
| Lawrenceville, GA 30244 | -sorry Barney | |

End of Info-Hams Digest V93 #1447

